

# 1998 WEATHER SUMMARY

**JANUARY** was warm and wet. Temperatures averaged 8.1 degrees warmer than normal, making it the ninth warmest January in the last 104 years. Precipitation totals averaged 5.18 inches. This was 201% of normal and the third wettest January on record. Some of the precipitation fell in the form of freezing rain for an extended period of time between the fourth and ninth. This resulted in one of the most catastrophic ice storms ever to have occurred in the state. Ice accumulations reached 2 to over 3 inches.

**FEBRUARY** was New York's second warmest February since records began in 1895. The monthly average temperature of 30.4 degrees was 8.9 degrees warmer than normal. Precipitation totaled 2.40 inches, 99% of normal.

**MARCH** was 3.3 degrees warmer than normal. This was the eighteenth warmest March in 104 years of record. At least 19 cities in the northeast set records for their warmest temperatures ever recorded during the month of March. Precipitation totaled 3.62 inches, 127% of normal.

**APRIL** temperatures averaged 2.9 degrees warmer than normal. Precipitation totaled 3.10 inches, .20 inches below average.

**MAY** was the sixth consecutive month with warmer-than-normal temperatures. The month averaged 6.2 degrees warmer than normal for the second warmest May in 104 years of record. Precipitation during May averaged very close to normal.

**JUNE** extended the string of consecutive warm months to seven. Average temperature was 0.7 degrees warmer than normal. June's average of 6.63 inches of precipitation was 173% of normal. This was sufficient to make it the third wettest June on record.

**JULY** temperatures averaged quite close to normal. All of the state's climatological divisions, except the Coastal Division, had monthly average temperatures that were within one degree of the long-term normal. The Coastal Division was 1.2 degrees warmer than normal. Precipitation was below normal from the Mohawk Valley through the Hudson Valley, Eastern Plateau and Coastal Division. The rest of the state experienced wetter than normal conditions.

**AUGUST** average temperatures were 2.5 degrees warmer than normal. Dry conditions were prominent across most of the state. The Eastern Plateau was the driest division, reporting 53% of the normal August precipitation and recording their eighth driest August in 104 years of record.

New York State overall received an average of 87% of the normal precipitation for the month.

**SEPTEMBER** average temperature was 2.8 degrees warmer than normal and the fourteenth warmest September in 104 years of record. Figures indicate that for the first nine months of 1998, New York has averaged 3.6 degrees warmer than normal and stands second to only 1921 on the list of New York's warmest January-September periods. Precipitation totals were drier than normal everywhere except the northern portion of the state. The state average was 2.72 inches, which was 72% of normal.

**OCTOBER** temperatures averaged 1.9 degrees warmer than normal. Precipitation averaged 85% of normal. The Mohawk Valley was the driest division with 64% of their normal October accumulation. The Hudson Valley, meanwhile, was the only wetter than normal division, with 112% of the long-term mean.

**NOVEMBER** temperatures averaged 1.3 degrees warmer than normal. Preliminary figures indicate that this January through November was the warmest such period in 104 years of record. Precipitation was well below normal. The state averaged just 45% of the normal November total. This was the state's eighth driest November on record and the driest since 1976.

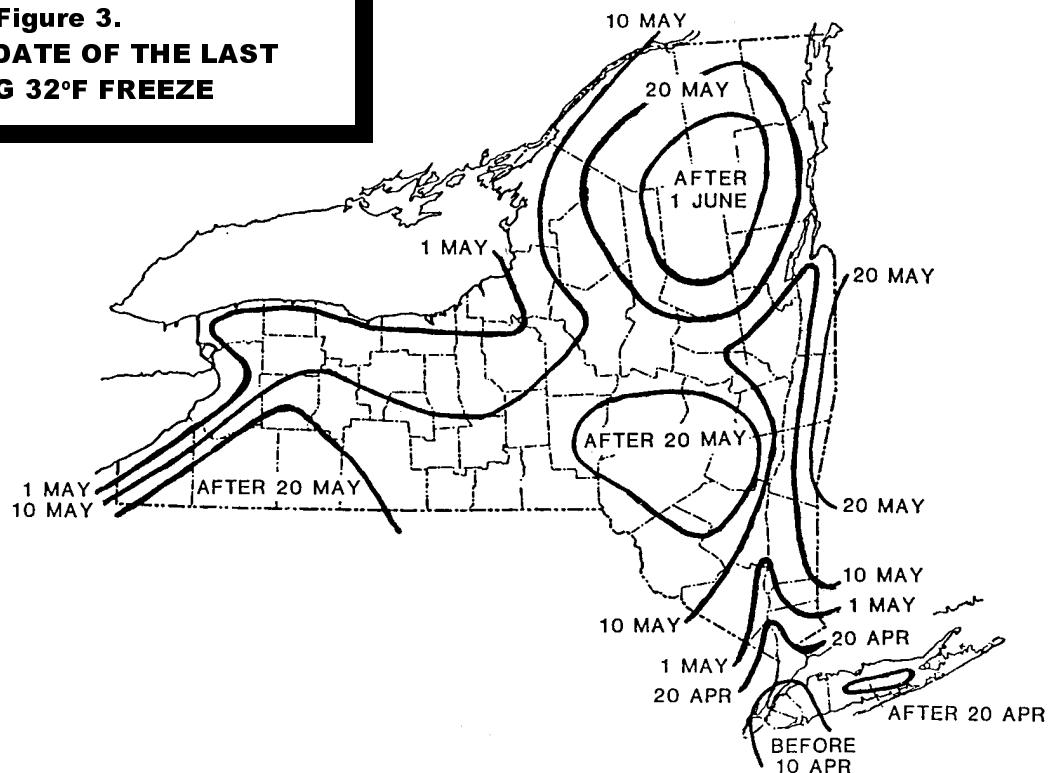
**DECEMBER** was the second warmest December on record. The monthly average temperature of 33.3 degrees was 7.8 degrees warmer than normal. December was a very dry month. Overall, the state recorded its eighth driest December on record and the driest since 1989. The state averaged only 1.62 inches of precipitation. This monthly total represented just under half (49%) of the normal monthly amount.

## 1998 SUMMARY

The statewide annual average temperature of 48.6 degrees (*3.5 degrees warmer than normal*) made 1998 the warmest year on record in New York state. The previous record was 48.1 degrees in 1949.

Precipitation for the year averaged close to normal. This was due to a very wet first 6 months of the year (*134% of normal; second wettest on record*) and a very dry last 6 months (*75% of normal; eighth driest on record*). The statewide annual average of 41.08 inches was just 0.89 inches more than the annual normal.

**Figure 3.**  
**AVERAGE DATE OF THE LAST  
SPRING 32°F FREEZE**



**Figure 4.**  
**AVERAGE DATE OF THE FIRST  
AUTUMN 32°F FREEZE**

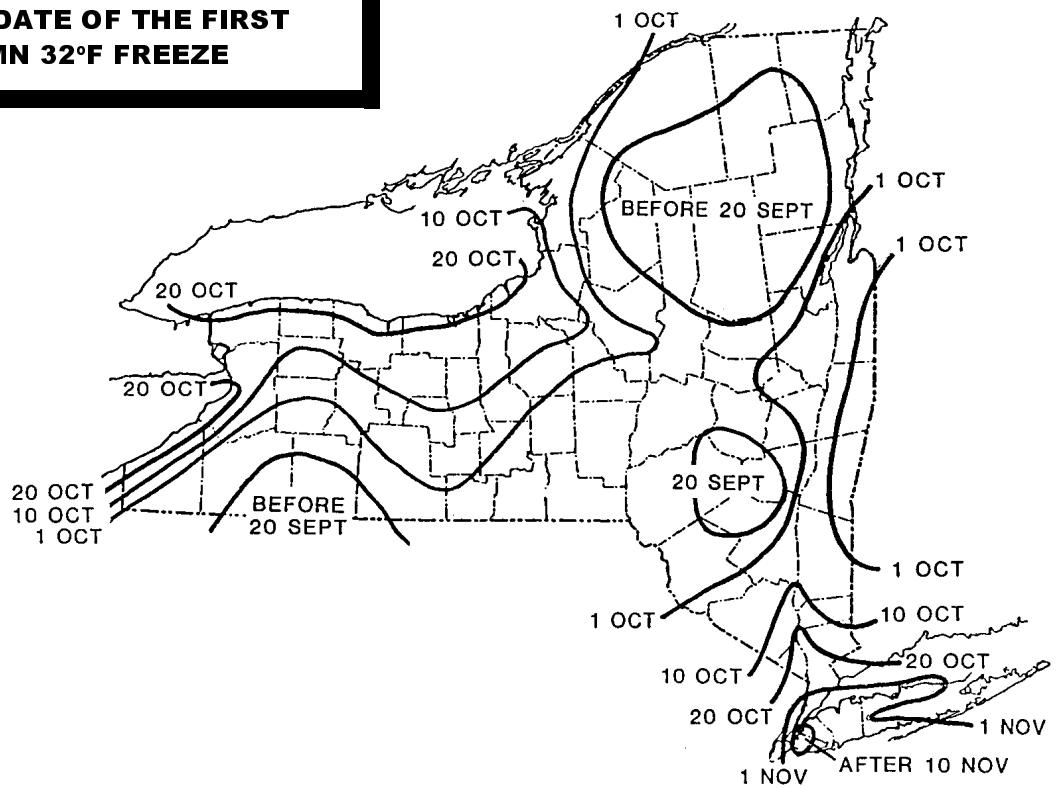


Table 96. **TEMPERATURE:** Departures From Normal by Months at Selected Stations, 1998

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<i>Degrees F.</i>												
Albany	8.4	8.3	4.1	2.4	5.3	-0.6	-0.9	1.5	1.9	0.5	0.2	7.2
Batavia	8.0	8.8	3.6	2.1	6.5	0.7	-0.4	1.9	2.8	1.8	1.0	7.9
Binghamton	9.7	8.4	3.8	1.8	5.4	-1.2	-1.5	1.6	3.2	0.4	0.8	6.6
Bridgehampton	7.4	5.6	1.9	1.2	2.6	-0.6	0.3	0.7	1.8	0.5	-1.1	3.7
Buffalo	7.5	9.6	2.7	1.6	6.2	-0.6	-1.5	2.2	1.8	1.5	1.5	6.2
Canton	4.0	8.6	3.8	4.2	6.9	1.6	0.2	1.6	1.4	1.4	1.3	9.7
Chazy	3.5	7.2	2.7	3.4	7.2	1.2	0.1	1.5	3.4	2.4	2.6	8.9
Coopertown	8.4	1/	3.3	2.6	5.6	0.9	-0.5	1.5	2.7	1.0	1.3	7.0
Dansville	7.8	8.6	2.6	2.3	6.3	0.3	-1.0	1.5	2.2	0.5	-4.7	5.9
Elmira	8.7	9.5	3.7	3.2	7.4	1.7	0.1	3.3	3.8	1.7	-0.1	6.3
Fredonia	8.6	9.6	3.9	1.8	6.4	1.1	-0.5	2.6	3.4	2.1	2.6	7.3
Geneva	7.3	7.5	2.8	2.4	6.9	0.2	-0.5	1.3	2.1	1.8	0.2	7.2
Glens Falls	10.2	8.8	4.3	3.2	6.2	0.7	-0.3	2.2	2.2	2.0	1.3	6.7
Gloversville	7.4	8.3	2.1	2.1	5.3	-0.4	1/	1/	1/	1/	1/	1/
Ithaca	1/	7.8	3.2	2.4	6.2	0.7	-0.2	2.6	3.0	1.0	0.6	6.3
Liberty	9.2	8.6	2.6	1.9	4.4	-1.5	-1.5	1.3	2.9	1.6	1/	1/
Little Valley	8.6	9.7	1.9	1.1	5.3	-1.0	-1.8	1.4	0.4	-0.2	-0.8	5.2
Lowville	7.4	9.3	2.5	3.2	6.0	0.5	-1.0	0.8	1.6	0.9	0.5	8.1
Massena	5.0	8.2	5.0	5.8	8.2	3.3	0.5	2.9	2.8	2.6	3.9	9.3
New York City	8.5	7.0	3.0	1.5	1.6	-2.4	-0.3	1.2	2.0	0.1	0.5	6.6
Riverhead	8.7	7.7	3.5	1/	3.7	0.3	2.0	1/	4.2	2.5	1.4	6.4
Rochester	8.0	8.0	3.8	1.8	5.8	0.6	-0.6	1.8	1.0	0.1	1.3	5.5
Syracuse	7.2	7.2	4.0	2.4	5.8	1.0	-0.3	2.7	2.5	1.2	1.2	7.1
Utica	8.8	9.5	4.8	3.2	7.0	1.2	-0.1	1/	3.0	2.6	2.5	9.0
Watertown	7.6	9.3	3.5	2.2	5.8	2.0	-0.4	1.3	1.1	1.2	0.9	8.5

Table 97. **Precipitation:** Departures From Normal by Months at Selected Stations, 1998

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<i>Inches</i>												
Albany	1.44	0.31	-0.07	0.50	2.46	2.96	-0.44	-1.26	-0.97	1.31	-1.58	-1.89
Batavia	1/	-0.86	1.29	-1.22	1.08	2.17	2.05	-0.88	-1.33	-0.47	-0.41	
Binghamton	0.71	2.15	0.46	1.41	2.62	1.64	-1.13	-1.80	-0.73	0.19	-1.85	-1.41
Bridgehampton	0.41	2.77	2.24	3.52	2.91	3.33	-1.66	0.22	0.37	0.07	-3.17	-2.85
Buffalo	2.91	-0.03	1.18	-0.33	0.59	-0.68	1.31	-2.43	-1.06	-0.99	-2.22	-2.13
Canton	3.53	-0.37	0.56	-1.63	-1.85	2.99	1.75	1.36	-0.63	-0.79	-1.81	-1.12
Chazy	3.66	1/	1/	-0.82	-0.65	4.73	1.31	0.34	1.59	0.18	-2.14	-2.11
Coopertown	2.91	1.03	0.30	0.74	-0.34	3.21	0.64	0.75	-1.23	-0.33	-1.64	-1.47
Dansville	0.45	0.21	1/	-0.46	-0.16	0.70	1.98	-0.80	0.18	-0.73	-2.22	-1.06
Elmira	0.87	0.69	1.57	1.40	0.69	2.62	1.27	-2.02	-0.61	0.28	-2.02	-1.45
Fredonia	3.31	-0.51	1.03	1.22	-0.03	-0.23	-0.93	-0.93	-2.53	-0.97	-2.56	1/
Geneva	3.02	0.32	1.33	-0.14	-0.17	1.09	0.71	-0.45	-1.02	-1.19	-2.15	1/
Glens Falls	1.73	-0.99	1.23	-0.12	1.03	5.02	-0.08	0.52	-1.82	-0.33	-0.87	-1.77
Gloversville	2.49	-0.53	-0.21	-1.23	-1.81	4.37	1/	1/	1/	1/	1/	1/
Ithaca	1/	-0.93	0.88	1.25	-0.21	1.34	-0.92	1/	-1.21	-0.23	-1.83	-1.36
Liberty	1/	-1.17	1/	0.56	2.73	2.83	0.05	-3.32	-1.04	0.34	-2.00	1/
Little Valley	2.94	1/	1.16	-1.25	-0.92	-0.08	1.07	-1.18	-2.49	-1.45	-2.03	-1.58
Lowville	1/	-0.55	0.51	-1.73	-0.32	1.83	-1.04	2.66	-1.61	-0.98	-1.21	-1.90
Massena	3.29	-0.62	1.20	-1.45	0.03	1.74	-0.13	-1.00	1.02	-0.49	-1.90	-1.33
New York City	1.78	2.54	1.00	2.85	2.52	2.27	-3.26	-1.23	-0.45	-0.80	-2.99	-2.79
Riverhead	1.86	1.33	2.97	1/	3.04	3.05	-0.19	1/	-0.16	-1.16	-2.24	-3.00
Rochester	3.55	0.24	1.22	-0.80	-0.09	4.11	3.38	1.99	0.03	-0.99	-1.51	-1.13
Syracuse	2.42	0.99	0.17	-1.24	-0.91	0.83	-0.18	1.26	-1.38	-0.71	-1.66	-1.46
Utica	1.56	0.10	-0.89	-1.48	-0.90	1.59	-0.20	1/	-2.01	-1.21	-2.13	-2.11
Watertown	4.30	0.27	1.51	-1.20	-0.57	2.12	-0.21	1.48	-0.41	0.37	-1.81	-0.90

1/ Data not available.

Weather information and data furnished in cooperation by National Weather Service, NOAA, U.S. Dept. of Commerce.

Table 98. **TEMPERATURE:** Monthly Average Temperatures at Selected Stations, 1998

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	<u>Degrees F.</u>											
Albany	29.0	31.8	38.4	48.8	62.9	66.3	70.9	71.1	63.2	50.7	39.9	33.7
Batavia	31.4	33.4	38.2	48.2	64.0	67.2	70.4	70.6	64.9	53.4	41.7	36.5
Binghamton	30.8	31.1	36.4	46.2	61.2	63.0	67.7	68.8	62.8	49.2	39.1	33.1
Bridgehampton	37.3	36.7	40.1	47.8	58.8	64.9	71.8	71.7	65.9	54.5	43.9	38.9
Buffalo	31.1	34.1	36.5	46.8	62.8	65.3	69.6	71.2	63.7	52.6	42.0	35.3
Canton	18.8	25.1	32.4	46.3	61.2	64.8	68.4	67.6	59.5	48.3	37.3	30.6
Chazy	19.6	25.3	32.2	46.5	62.6	65.6	69.3	68.1	61.7	49.9	38.8	31.1
Coopertown	28.8	30.1	35.6	46.1	60.5	64.1	67.3	67.7	61.6	49.4	39.3	32.8
Dansville	31.6	33.5	37.0	47.7	62.8	65.8	69.3	70.0	63.6	51.3	36.2	35.4
Elmira	31.5	33.5	37.7	48.3	63.3	66.4	69.8	71.0	64.1	50.7	39.5	34.7
Fredonia	33.5	35.2	39.2	47.9	63.6	67.5	70.4	71.8	66.6	55.0	45.0	38.2
Geneva	29.6	30.8	36.0	47.3	63.0	65.4	69.9	69.9	63.4	52.0	40.2	35.2
Glens Falls	27.2	28.8	36.2	47.8	62.0	65.4	69.5	69.6	61.2	49.7	38.5	30.6
Gloversville	25.4	28.2	32.9	46.1	61.0	64.1	1/	1/	1/	1/	1/	1/
Ithaca	1/	30.4	36.1	46.4	61.2	64.6	68.4	69.5	62.8	50.0	39.8	33.9
Liberty	29.6	31.1	34.8	45.6	58.9	61.4	66.3	67.3	61.3	49.4	1/	1/
Little Valley	29.3	31.2	33.1	43.6	58.5	61.1	64.8	66.5	58.8	47.7	37.1	31.9
Lowville	23.0	26.6	31.3	45.1	59.9	63.4	66.5	66.1	58.9	47.6	35.9	30.3
Massena	19.3	24.7	33.3	48.5	63.4	67.2	69.7	69.4	60.8	49.6	39.2	29.5
New York City	40.0	40.6	45.4	54.0	64.3	69.2	76.5	76.7	70.2	57.6	48.1	43.2
Riverhead	39.1	39.3	43.1	1/	63.0	68.7	75.5	1/	70.1	58.1	47.3	42.1
Rochester	31.6	32.6	38.1	47.7	62.9	65.7	69.6	69.8	62.7	51.2	41.8	34.6
Syracuse	29.6	31.2	37.9	48.1	62.9	66.3	70.1	71.1	64.0	51.9	41.7	35.4
Utica	28.9	31.3	37.0	47.9	63.3	66.1	70.1	1/	63.3	51.7	41.1	34.8
Watertown	25.5	28.6	34.4	45.4	60.0	64.8	68.2	68.1	60.3	49.6	38.8	32.6

Table 99. **PRECIPITATION:** Monthly Precipitation at Selected Stations, 1998

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	<u>Inches</u>											
Albany	3.80	2.58	2.86	3.49	5.87	6.58	2.74	2.21	1.98	4.14	1.65	1.04
Batavia	5.08	0.97	3.31	1.85	4.39	5.93	5.02	2.96	2.32	2.49	1.90	2.05
Binghamton	3.11	4.48	3.28	4.54	5.98	5.24	2.37	1.56	2.59	3.08	1.43	1.59
Bridgehampton	6.56	6.62	6.35	7.49	6.73	6.92	1.34	3.67	3.83	3.46	1.36	1.46
Buffalo	5.61	2.28	3.86	2.54	3.73	2.87	4.39	1.74	2.43	2.10	1.61	1.54
Canton	5.44	1.50	2.67	1.22	1.13	6.27	5.12	5.54	3.22	2.46	1.62	1.64
Chazy	5.16	0.31	0.27	1.75	2.31	7.77	4.69	4.42	4.68	3.07	0.68	0.25
Coopertown	5.34	3.20	3.34	4.03	3.31	7.39	4.16	4.25	2.49	2.72	1.75	1.62
Dansville	1.85	1.67	1.39	2.35	2.75	4.51	5.01	2.42	3.54	1.89	0.44	1.07
Elmira	2.66	2.69	3.89	4.09	3.89	6.38	4.64	1.03	2.47	3.08	0.93	0.86
Fredonia	5.57	1.57	3.66	4.38	3.10	3.43	2.67	3.04	2.12	2.94	1.69	2.45
Geneva	4.78	2.10	3.39	2.77	2.83	4.76	3.66	2.69	2.20	2.57	0.91	0.80
Glens Falls	4.33	1.28	4.12	2.86	4.63	8.20	2.88	4.17	1.27	1.70	2.21	1.20
Gloversville	5.33	2.12	3.08	2.31	2.19	8.40	1/	1/	1/	1/	1/	1/
Ithaca	1/	2.93	3.15	4.16	3.10	5.11	2.53	1.99	2.32	3.02	1.25	1.21
Liberty	4.48	2.09	4.08	4.92	7.36	7.41	4.31	1.10	2.87	4.06	2.27	1/
Little Valley	6.34	1.75	4.62	2.57	3.02	4.47	5.10	3.29	2.19	2.62	2.05	3.17
Lowville	6.82	1.95	3.29	1.37	2.73	5.35	2.29	6.46	2.16	2.44	2.86	1.79
Massena	5.42	1.37	3.35	1.20	2.56	4.88	3.04	2.74	4.51	2.32	1.23	1.86
New York City	5.20	5.81	5.08	7.05	6.94	5.94	1.09	2.78	3.44	2.76	1.48	1.12
Riverhead	1/	4.90	6.88	1/	6.83	6.72	3.16	1/	3.03	2.35	2.06	1.14
Rochester	5.63	2.34	3.50	1.81	2.63	7.11	6.09	5.39	3.00	1.45	1.41	1.60
Syracuse	4.76	3.14	2.94	2.09	2.37	4.62	3.63	4.77	2.41	2.53	2.06	1.74
Utica	5.03	3.12	2.56	2.08	2.77	5.69	3.61	1/	2.32	2.16	2.14	2.13
Watertown	6.83	2.29	3.72	1.31	2.12	4.81	1.73	4.76	2.85	3.13	1.50	1.94

1/ Data not available.

Weather information and data furnished in cooperation by National Weather Service, NOAA, U.S. Dept. of Commerce.

Table 100. **TEMPERATURE:** Average Monthly Soil Temperatures at Selected Stations, January-December 1998

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<i>Degrees F.</i>												
<b>HUDSON VALLEY</b>												
<b>Valatie</b>												
4" Max.	32.1	30.6	36.8	51.4	66.5	71.0	76.6	77.8	69.8	56.4	43.1	37.9
4" Min.	31.7	30.1	34.2	45.6	59.4	65.3	70.4	71.4	63.8	52.8	41.0	36.2
8" Max.	33.1	32.0	36.4	49.8	63.3	68.9	74.5	75.4	1/	1/	44.7	39.9
8" Min.	32.9	32.0	1/	47.3	60.0	66.5	71.9	72.9	1/	1/	43.3	38.7
<b>ST. LAWRENCE VALLEY</b>												
<b>Canton</b>												
4" Max.	32.2	31.4	33.7	50.9	65.6	70.5	75.1	74.3	67.2	56.0	44.3	39.7
4" Min.	31.7	30.2	32.6	43.4	56.3	63.4	67.9	67.8	61.9	51.5	41.8	37.1
8" Max.	32.3	31.4	33.0	47.4	60.3	65.9	71.2	71.0	64.7	54.4	43.4	39.2
8" Min.	32.2	30.9	32.4	44.0	56.2	63.1	67.9	67.8	62.2	52.1	42.3	37.8
<b>CENTRAL LAKES</b>												
<b>Ithaca</b>												
4" Max.	1/	31.1	36.1	47.2	60.7	63.5	68.8	69.6	64.6	52.9	41.5	37.3
4" Min.	1/	30.5	33.2	41.3	54.6	58.8	63.9	64.1	59.6	49.6	39.0	34.7
8" Max.	1/	37.1	41.3	52.3	65.6	69.8	75.3	75.8	71.3	60.5	49.0	44.9
8" Min.	1/	36.8	39.3	48.8	61.9	67.0	72.2	72.7	68.4	58.5	47.6	43.2

1/ Data not available.

Weather information and data furnished in cooperation by National Weather Service, NOAA, U.S. Dept. of Commerce.

Table 101. **HEATING DEGREE DAYS:** Selected Stations, January-December, 1998 1/

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<u>Degrees F.</u>												
Albany	1,112	924	828	478	98	84	2	10	99	435	746	964
Batavia	1,037	878	836	498	96	80	1	12	78	359	690	875
Binghamton	1,052	942	893	554	151	140	17	26	120	483	772	982
Bridgehampton	852	786	764	511	202	84	3	3	50	319	626	803
Buffalo	1,045	862	878	538	96	104	0	9	88	378	682	912
Canton	1,426	1,113	1,008	553	144	106	30	43	177	512	823	1,057
Chazy	1,407	1,103	1,007	549	84	81	8	22	117	463	779	1,042
Cooperstown	1,115	973	909	563	154	122	18	28	133	474	763	991
Dansville	1,027	876	867	513	102	99	10	22	114	419	857	912
Elmira	1,032	879	842	499	99	90	8	20	100	437	759	930
Fredonia	968	829	809	504	97	86	3	9	52	309	592	823
Geneva	1,088	952	906	523	111	94	10	25	104	397	738	916
Glens Falls	1,153	1,008	874	509	96	99	7	14	139	466	791	1,060
Gloversville	1,221	1,024	986	562	140	119	2/	2/	2/	2/	2/	2/
Ithaca	2/	963	896	555	134	116	25	34	132	459	750	956
Liberty	1,092	942	928	581	197	162	28	26	147	479	2/	2/
Little Valley	1,101	941	926	636	204	166	56	54	201	530	831	1,016
Lowville	1,294	1,069	1,038	589	162	127	31	54	196	533	866	1,066
Massena	1,405	1,106	976	487	88	66	8	14	143	473	767	1,091
New York City	768	676	635	322	99	29	0	0	20	222	499	670
Riverhead	796	713	670	2/	103	35	0	0	17	213	523	701
Rochester	1,029	901	837	513	109	99	4	14	115	424	690	935
Syracuse	1,089	941	844	500	102	96	3	13	89	403	692	911
Utica	1,109	936	873	502	92	99	1	2/	2/	409	711	929
Watertown	1,215	1,011	946	580	161	103	13	36	165	479	779	1,000

1/ One heating degree day is accumulated for each whole degree that the daily mean temperature is below 65 degrees Fahrenheit.

2/ Data not available.

Weather information and data furnished in cooperation by National Weather Service, NOAA, U.S. Dept. of Commerce.

Table 102. **POPULATION:** Resident Population, July 1,  
New York and United States, 1988-1998

Year	New York	United States
<u>Thousands</u>		
1988	17,909	245,785
1989	17,950	248,239
1990	18,003	249,398
1991	18,037	252,106
1992	18,099	255,011
1993	18,170	257,795
1994	18,197	260,372
1995	18,191	262,890
1996	18,185	265,284
1997	18,137	267,636
1998		

SOURCE: Bureau of Census, U.S. Department of Commerce.